Bidwell Bar Bridge crosses the Feather River.

Thermalito Forebay and Afterbay store water used to regulate pumping and power generation. The forebay can hold 11,768 acre-feet of water and the afterbay 57,041 acre-feet.

Water released from the forebay flows through Thermalito Powerplant's turbines, generating up to 119,600 kilowatts. Together, Thermalito and Hyatt Powerplants will produce an average of 2.2 billion kilowatthours of electricity each year.

Feather River Fish Hatchery

Feather River Fish Hatchery was opened in 1967 to replace spawning areas lost when the river was blocked by construction of Oroville Dam.

Each year, thousands of people tour the hatchery to watch the salmon runs in the fall and steelhead runs in the winter. Special windows give visitors a unique view of fish leaping their way up the ladder to the hatchery.

At the hatchery, salmon and steelhead are artificially spawned. Eggs are taken from the female and fertilized with milt (fluid containing sperm) from the male. After these eggs hatch, the young fish are raised in rearing raceways until they are large enough to be released.

Financed by the Department of Water Resources and operated by the Department of Fish and Game, the hatchery is open to the public from 8 a.m. to sundown daily.

Recreation

As a visitor, you will find that Lake Oroville's vast size and 167-mile shoreline offer ample opportunities to swim, boat, fish, water-ski, camp, and picnic. Thermalito Afterbay and Forebay also provide recreation areas for water sports, fishing and picnicking. Limited waterfowl hunting is permitted on the afterbay only.

Water skiing at Oroville Lake.

Visitors Center

Situated southeast of Oroville Dam, Lake Oroville Visitor Center sits atop Kelly Ridge. The center's 47-foot viewing tower gives visitors a sweeping view of the Oroville-Thermalito Complex, the Bidwell Bar Bridge, part of the Sierra Nevada, and the Sutter Buttes, one of the smallest complete mountain ranges in the world.

Kelly Ridge Visitors Center's Tower.

The visitors center, which won a national award for its architectural design, houses wall displays, local artifacts, film and video explaining the story of the State Water Project and the Oroville-Thermalito Complex. Jointly operated by the Department of Water Resources and the Department of Parks and Recreation, the center is open from 9 to 5 daily. Staff are available to answer questions, and admission is free.

For more information, call the visitors center at (916) 538-2219 or write to 917 Kelly Ridge Road, Oroville, CA 95966.

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California Department of Water Resources' Mission...

To manage the water of California, in cooperation with other agencies, to benefit the state's people and protect, restore and enhance the natural and human environments.

Oroville – Thermalito Complex

PETE WILSON
Governor
State of California

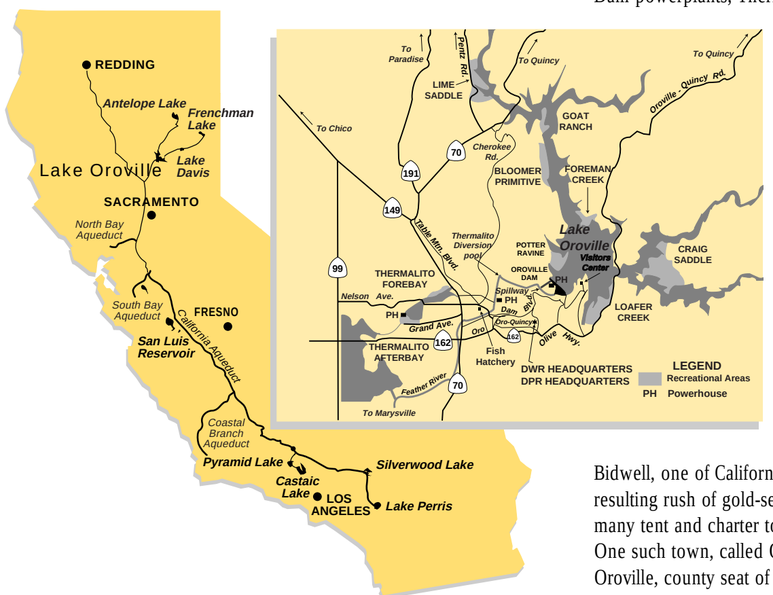
DOUGLAS P. WHEELER
Secretary for Resources
The Resources Agency

DAVID N. KENNEDY
Director
Department of Water Resources

6/96

The State Water Project

Planned, constructed and operated by the California Department of Water Resources, the State Water Project is the largest state-built, multipurpose water project in the U.S. The Project includes 29 storage facilities, 18 pumping plants, four pumping-generating plants, five hydroelectric power plants and approximately 660 miles of canals and pipelines. Its main purpose is water supply — that is, to divert and store surplus water during wet periods and distribute it to areas of need in Northern California, the San Francisco Bay area, the San Joaquin Valley, the Central Coast, and Southern California. Other project purposes include flood control, power generation, recreation, fish and wildlife enhancement, and water quality improvement in the Sacramento-San Joaquin Delta.



Twenty-nine water contractors, the urban and agricultural water agencies that buy water from the State Water Project, have long-term contracts for an ultimate total of just over four million acre-feet a year. Approximately 60 percent of SWP water goes to urban users and 40 percent to agricultural users.

Oroville-Thermalito Complex

Located at the foot of the Sierra Nevada Mountains in Northern California, the Oroville-Thermalito Complex is a key water storage and electrical generation facility for the State Water Project. The project delivers water for agriculture, cities and industries and provides flood control, recreation, water quality improvement, fish and wildlife protection and enhancement, and hydroelectric power.

The Oroville-Thermalito Complex includes Lake Oroville and Oroville Dam, the Edward Hyatt Powerplant, Thermalito and Thermalito Diversion Dam powerplants, Thermalito Forebay and Afterbay, Thermalito Diversion Dam, the Feather River Fish Hatchery, and a fish barrier dam.

To reach the complex, which lies 75 miles north of Sacramento, take Oroville Dam Boulevard (Highway 162) or Montgomery Street exit off Highway 70 at Oroville.

History

Gold was discovered in 1848 at Bidwell Bar, a big sandbar (now submerged in Lake Oroville) named after John Bidwell, one of California's leading citizens. The resulting rush of gold-seekers to the area created many tent and charter towns along the Feather River. One such town, called Ophir, became the city of Oroville, county seat of Butte County.

Visible from the Oroville Visitors Center is the Bidwell Bar Bridge. The original bridge (the first suspension bridge built west of the Mississippi River) was shipped around Cape Horn and erected across the Middle Fork of the Feather River. Relocated to allow creation of Lake Oroville, it was later reconstructed at Bidwell Canyon Recreation Area.

Lake Oroville

Lake Oroville is the largest reservoir of the State Water Project. The lake covers 15,858 acres and holds 3,537,577 acre-feet of water—when filled it is enough to supply about 40 percent of California's urban water needs for one year. (One acre-foot equals about 325,800 gallons of water or the average amount of water one to two average families use in a year.)

On December 23, 1955, the Feather River swelled to 203,000 cfs and flooded downstream communities.

In addition to serving as a water storage facility, Lake Oroville provides flood control. As the lake rises during heavy rains or spring snowmelt, water is carefully released from the lake to prevent flooding downstream. During exceptionally heavy rainfall in 1986, inflow into Lake Oroville peaked at a record 266,000 cubic feet per second (cfs; a cubic foot is a little larger than a basketball), while releases from the lake reached 150,000 cfs.

Inside Edward Hyatt Powerplant.

Oroville Dam

Impounding the vast amount of water is Oroville Dam, the tallest and one of the largest earthen dams in the United States. The dam, completed in 1968, stands 770 feet high with a crest (top of dam) 6,920 feet long. Over 80 million cubic yards of material were needed to build Oroville Dam—enough material to build a two-lane highway around the earth.

The dam's inner core is a vertical layer of clay material which resists seepage. Gold-dredger tailings (sand and gravel left from early 20th century gold dredging along the Feather River) make up the remainder of Oroville Dam.

Most of the water stored behind Oroville Dam travels to homes, farms, businesses, and industries in the San Francisco Bay area, San Joaquin Valley and Southern California.

Lake Oroville & Oroville Dam Statistics

Gross Capacity	3,537,577 acre-feet
Surface Area	15,858 acres
Shoreline	167 miles
Maximum Depth	690 feet
Surface Elevation	899 feet
Dam Height	770 feet
Crest Elevation	922 feet
Crest Length	6,920 feet
Volume	80,000,000 cubic yards

Edward Hyatt Powerplant

In the bedrock beneath Oroville Dam, a cavern—large enough to hold almost two football fields—was blasted out to house Edward Hyatt Hydroelectric Powerplant.

Water released from Lake Oroville flows through Hyatt's turbines, which spin the powerplant's six generators capable of producing up to 819,000 kilowatts of electricity, the amount of energy needed to light the city of San Francisco.

Thermalito Diversion Dam.

The Thermalito Facilites

Situated downstream from Oroville Dam are the Thermalito facilities: Thermalito Diversion Dam, Diversion Dam Powerplant, Power Canal, Forebay, Powerplant, and Afterbay.

After passing through Hyatt's turbines, water from the lake is diverted by the Thermalito Diversion Dam into the Thermalito Power Canal, a concrete-lined canal about 10,000 feet long. The canal carries water in either direction between the Thermalito Diversion Dam and Forebay for pumping or power generation at Edward Hyatt and Thermalito Powerplants.